



Missouri Department of Natural Resources

Water Quality Coordinating Committee Water Protection Program

Minutes

May 16, 2006

WATER QUALITY COORDINATING COMMITTEE

DNR Conference Center
1738 E. Elm Street
Bennett Springs Conference Room
Jefferson City, Missouri

May 16, 2006

10:00 a.m.

MEETING AGENDA

Hinkson Creek Study, Phase II –Trish Rielly, Environmental Services Program, DNR

Other

Agency Activities

Meetings & Conferences

Nonpoint Source Management Plan Discussion

There will be continued discussion of revisions to the goals and objectives of the state's Nonpoint Source Management Plan for those interested in participating.

MISSOURI WATER QUALITY COORDINATING COMMITTEE

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MINUTES

Attendees:

Becky Shannon	DNR, Water Protection Program-WPCB	Randy Lyman	Springfield Public Works
Betty Wyse	Environmental Resources Coalition	Buffy Santel	MSD
Wayne Maresch	DNR, Environmental Services Pgm.	Anne Peery	DNR, Water Protection Program-WPCB
Colleen Meredith	DNR, Soil & Water Conservation Pgm	Caitlyn Peel	HBA of Greater St. Louis
Greg Anderson	DNR, Water Protection Program-WPCB	Carol Garey	WPCB, Water Protection Program
Cindy DiStefano	MO Dept. of Conservation	Trish Rielly	DNR, Environmental Services Pgm.
Bob Ball	USDA-NRCS	Randy Crawford	DNR, Environmental Services Pgm.
Emitt Witt	USGS-MCGSC	Darlene Schaben	DNR, Water Protection Program-WPCB
Gary Krizanich	USGS-MCGSC		

Introductions were made.

Hinkson Creek Study, Phase II –Trish Rielly, Environmental Services Program, DNR PowerPoint Presentation

Trish works with Randy Crawford in the Water Quality Monitoring Section of the Environmental Services Program. Randy did a presentation at a previous WQCC meeting on Phase I of the Hinkson Creek study. This is Phase II. Trish said the Hinkson Creek study is being conducted in Columbia, Boone County. Hinkson Creek was placed on the 303(d) list in 1998 for unknown pollutants due to a history of fish kills and other alterations that occur in urban streams. The impaired beneficial use was listed as the protection of warm water aquatic life. Trish showed a map of the impaired section of Hinkson Creek. The 14-mile study is to be completed in three phases. Reports for the first two phases are available on-line at <http://www.dnr.mo.gov/env/esp/esp-wqm.htm>.

The methodology they used was based on the Water Quality Triad Approach—samples were collected; toxicity testing was done; then toxicity identification evaluation procedure conducted. This allowed them to identify what possible class of chemicals might be present then submit sample for further analysis to determine what is present to contribute to the toxic effect.

Biologists collected a series of samples from various habitats and identified the macroinvertebrates present. These were compared on upstream to downstream sites then to reference sites within the same Ecological Drainage Unit (EDU) to determine the impairment or degree of impairment in Hinkson Creek. She showed a graph with percent Ephemeroptera, Plecoptera, Trichoptera (EPT) taxa, the pollution sensitive organisms, from Fall 2001 to Fall 2005. They found the upstream (Hinkson Creek Road) sites were consistently higher when compared to the downstream (Providence Road) sites, with the exception of Fall 2001 which followed a drought summer. These sites were then compared to the reference streams using the Stream Condition Index. With the same exception of Fall 2001, the Hinkson Creek Road site scored Fully Supporting during all sampling seasons. Samples were collected for base flow monitoring, turbidity monitoring, semi-permeable membrane devices (SPMDs) monitoring, and storm water monitoring. All samples were screened for toxicity using a Microtox System. Trish talked about the results of the toxicity tests. Base flow findings included elevated E. coli levels; specific conductivity and turbidity values greater than that in reference streams; and, nutrients were in the typical range for a stream in the EDU. She showed a graph of turbidity values and how they compared to reference

streams. SPMD monitoring showed low concentrations of pesticides, plasticizers, pharmaceutical medicines, surfactants, and long chain fatty acids. These are not only unique to Hinkson Creek but also found in other urban studies across the nation. Some of the general findings in the storm water monitoring included metals, E. coli, specific conductivity, chloride and turbidity; organic chemicals found plasticizers, cosmetics, pesticides/herbicides, solvents, coal tar/combustion of fossil fuels. These too were found in other urban studies. These concentrations of metals are often found where there is a high percentage of impervious surfaces. EPA says the storm water discharges are often the direct reflection of what they drain, i.e., roadways, parking lots, rooftops, etc. Other studies Trish read about indicate that metals in storm water are often associated with vehicle exhaust, worn tires, weathered paint, and rust. Trish showed some pictures taken during the study that were observations and occurrences of what was going on in the watershed. She said there are things that could be improved to maintain the macroinvertebrate level at fully supporting in the watershed and improve the health of the creek and other urban streams. Controlled and planned growth, low impact development alternatives, or maintain the riparian corridors could be used. Hinkson Creek is not the worst urban stream and is not the best urban stream but it can be improved if everyone in the watershed does their part. Trish quoted Randy's favorite, it's everyone's individual action in the watershed that tends to accumulate over time to create a much bigger problem. To reverse that process, little things can be done to improve the health of Hinkson Creek to maintain the invertebrates at fully supporting.

Randy said that Hinkson Creek is a classic example of where you have impacts where people live. He explained that incorporating best management practices into a development plan would help in keeping a stream healthy. In answer to a question, he said to get the word out in the watershed about the project, information/education was shared through a series of presentations, reports, media articles, and watershed groups.

Bob Ball mentioned that discussions are going on about vegetative buffer strips in Boone County. Trish said in Phase 3 of this study, some samples will be taken from Flat Branch to compare with Hinkson Creek.

Agency Activities / Meetings & Conferences

Becky mentioned the next Clean Water Forum will be held June 5 in Jefferson City. Information will be sent by e-mail and be available on Internet. One topic of discussion will be the stakeholder groups and how they should proceed.

Caitlyn Peel informed the group that St. Louis was chosen to host the upcoming National Association of Home Builders' (NHB) Green Building Conference, which will be in March 2007 at the Adams Mark Hotel. There are five houses that are being built under the new NHB model green building guidelines that should be approved within the next month or two. Caitlyn is the contact if anyone needs more information. Laclede Gas is the third party verifier to verify that they meet the requirements. They do three site visits per home. It was suggested she make a presentation to the WQCC group.

Anne Peery said that just before the legislative session ended they signed the bill that will relieve the 303(d) list from rulemaking. This is good news! The new fee rates for drinking water primacy fees and the water pollution fees were also approved. She mentioned that there would be several draft TMDLs coming out for public comment. By the middle of June, there should be 22 water body segments on or through public notice to count toward the Consent Decree numbers. She reminded the group that the Nutrient Criteria stakeholder group will meet today at 1 p.m. Becky encouraged everyone to provide comment and input on TMDL public notices to have it be considered.

Randy Lyman said that Marie Steinwachs wrote a grant dealing with Mercury in the Springfield area. She is working with the American Dental Association and a local dental association to get amalgam separators to control mercury from dental offices. Randy said they are involved by giving technical support by doing intense sampling.

They met with EPA and two contractors last week to discuss a study to characterize all things that come through the treatment plant. The last study was done in early 1980's. They will be doing intensive testing on influent/effluent sludge, air quality, emerging pollutants, endocrine disruptors, personal care products, etc.

Emitt Witt talked about some of the USGS changes. He is now Director of a new USGS cost center called Mid-Continent Geographic Science Center (MCGSC), which does geographic research. The topographic mapping staff are now with the National Geographic Technical Operations Center. The old National Mapping Division will then become obsolete and that capability will move to Denver, Colorado. Only the capability will move, not the staff. The MCGSC will take remote sensing images and various kinds of remote sensing data and try to apply that to land use changes; look at different factors on the landscape and how they change; soil studies; sedimentation studies; etc. They did a lot of work during Hurricane Rita and at the Taum Sauk event. They provided real time maps to workers who responded to the event. There are five cost centers that answer to the Geographic Research. They can be contacted through the Web at: <http://mcmcweb.er.usgs.gov/mcgsc>.

Bob Ball said they are working on development of Comprehensive Nutrient Management Plans (CNMPs) with livestock producers and trying to figure out how the CNMPs can be done better, more efficiently, and in a more readable format. NRCS is working with Technical Service Providers on a regular basis and provide assistance on a number of disciplines (forestry, nutrient management, etc.). NRCS is providing a portion of their assistance to them so they can do their job better and more efficiently. July 2007 is the EPA target date to have CNMPs for livestock producers in place. NRCS is directly responsible to ensure this happens.

Bob said they now have a Plant Materials Center located in Ellsberry, Missouri. It is the first of 27 in Missouri. There are 246 acres. An Open House is scheduled for September 20. Contact Bob for more information.

Cindy DiStefano said that Dr. Stephanie Parkin, a Fresh Water Ecologist, at the National Institute of Water and Atmospheric Research, is coming to visit for about one month to work with biologists. She will give a presentation on May 26, 1 p.m., at 210 Natural Resources Building in Columbia. The agency runs a working farm that has several conservation practices on it.

Carol Garey said that Senate Bill 1149 (that Anne had talked about) had a number of unrelated items in it. She hopes the Governor will sign the bill. It includes a bonding requirement for wastewater treatment and innovative methods. The bond has to be unproven technology and not approved by the feds or by any state agency.

Greg Anderson said they are working on hiring for two vacancies. He said work is being done to extend the UMC subgrant for the Spatial Nutrient Management Plan. The 2005 319 grant should be received soon. He said they are waiting on the USGS water quality data in order to close out another grant. He mentioned that the FY2006-2007 grant proposals are due in June.

Colleen Meredith said the Parks & Soils Sales Tax renewal will be on the August ballot. This tax funds part of Missouri State Parks and the DNR's Soil & Water Conservation Program and is administered by DNR.

Wayne Maresch attended the National Conference for Water Quality Monitoring in San Jose, California. He felt Missouri's volunteer water quality monitoring program was one of, if not the, premier programs in the nation. He spent a lot of time telling others about Missouri's program.

Betty Wyse said the Water Quality Improvement Project received the first award of \$2.8 million. Implementation should begin soon. They have a contract in place to do data gap analysis on water data in the five basin areas—Elk, Spring, James, Table Rock, and Sac. That will include putting info into a database that will be housed at Missouri State University in Springfield. Table Rock & Springfield Watershed Utilities are working on on-site sewage and a training center for installers. They will also look at sewage systems that impact

springs. James River and Upper White areas will be working on low impact development. Elk and Spring are still working on proposals, which will include some on-site sewage components and agriculture components. Trish Rielly said Phase III of the Hinkson Creek study is ongoing. They will continue with chemical monitoring until the end of June, then some macroinvertebrate work that should be done by fall. The Phase III report should then be available.

Randy Crawford has been involved with the Taum Sauk incident. On May 25 there will be a meeting of invited dignitaries where there will be a guided tour of the park followed by a media tour that will showcase the park and cleanup. The park will be open on Memorial Day for guided tours. The geologists are fascinated by this area. They are trying to incorporate this into an interpretive program for the future.

Bob Ball said they are waiting on approvals for a contract in Spring River for the Conservation Security Program. A lot of money will be going there in the next ten years.

Randy Lyman mentioned that the Noble Hill Landfill methane to energy facility dedication was on the news. This was the first one linked with City Utilities in Missouri. With the trash currently there, it was estimated there would be enough methane generated to run the generation plant for 35-40 years.

Nonpoint Source Management Plan, Becky Shannon, WPCB, DNR

Handout: Suggestions Regarding Revision to the Plan from April 18 WQCC and May 9 Meetings

Becky felt that from the last meeting, it seemed that more time is needed to discuss revisions to the goals and objectives. Some thought the goals were OK as they were but the objectives needed revised. Greg felt other stakeholders and interested parties need to be invited. Greg said that this is a planning document and that an objective might be to pursue some of the innovative techniques and determine if they are viable.

Betty said there is a need to work with counties and municipalities to encourage them to change some ordinances that prevent use of the newer technologies.

Greg and Becky will work on developing a recommendation for the next step and send that through department management for approval. That will be shared with the WQCC group and others that may be interested.

Meeting adjourned.